

1940

# Some results of a farm management survey in Rapides, Union, Claiborne and DeSoto Parishes, 1938

John Norman Efferson

Follow this and additional works at: <http://digitalcommons.lsu.edu/agexp>

---

## Recommended Citation

Efferson, John Norman, "Some results of a farm management survey in Rapides, Union, Claiborne and DeSoto Parishes, 1938" (1940). *LSU Agricultural Experiment Station Reports*. 466.  
<http://digitalcommons.lsu.edu/agexp/466>

This Article is brought to you for free and open access by the LSU AgCenter at LSU Digital Commons. It has been accepted for inclusion in LSU Agricultural Experiment Station Reports by an authorized administrator of LSU Digital Commons. For more information, please contact [gcoste1@lsu.edu](mailto:gcoste1@lsu.edu).

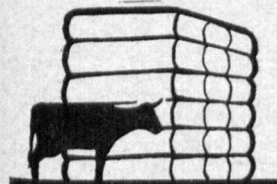
## Some Results of a Farm Management Survey in Rapides, Union, Claiborne and DeSoto Parishes, 1938

By  
J. N. EFFERSON

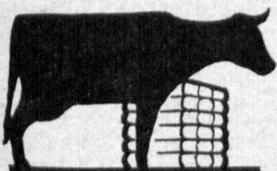
RELATION OF ACRES IN COTTON AND NUMBER OF DAIRY  
COWS TO LABOR EARNINGS



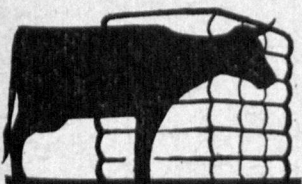
SMALL COTTON FARM  
FEW DAIRY COWS  
LABOR EARNINGS \$446



LARGE COTTON FARM  
FEW DAIRY COWS  
LABOR EARNINGS \$456



SMALL COTTON FARM  
SEVERAL DAIRY COWS  
LABOR EARNINGS \$757



LARGE COTTON FARM  
SEVERAL DAIRY COWS  
LABOR EARNINGS \$876

The most profitable combination of enterprises on the farms studied was a fairly large operating unit of both the cotton and the dairy enterprise. Farmers specializing in either of these two without a relatively large unit of the other made lower returns than did those with a combination of both enterprises.

LOUISIANA STATE UNIVERSITY  
AND  
AGRICULTURAL AND MECHANICAL COLLEGE  
AGRICULTURAL EXPERIMENT STATIONS  
C. T. DOWELL, *Director*

## TABLE OF CONTENTS

	PAGE
INTRODUCTION .....	3
PRICE SITUATION .....	3
FARM ORGANIZATION .....	4
Use of Land .....	4
Crops Grown .....	4
Crop Yields .....	5
Livestock .....	6
INCOME AND EXPENSES .....	6
Capital Invested .....	6
Farm Receipts .....	7
Farm Expenses .....	8
Farm Returns .....	9
Farm Privileges and Labor Earnings .....	10
Variation in Labor Earnings .....	11
FACTORS AFFECTING FARM RETURNS .....	11
Size of Business .....	11
Rates of Production .....	13
Choice of Enterprises .....	13
LOCATING THE STRONG AND WEAK POINTS .....	15

# SOME RESULTS OF A FARM MANAGEMENT SURVEY IN RAPIDES, UNION, CLAIBORNE AND DESOTO PARISHES, 1938

By J. N. EFFERSON

## INTRODUCTION

The two greatest hazards confronting cotton producers in Louisiana are probably changes in the price level and the weather. Changes in the price level affect the relation between prices farmers receive for their products and things for which they pay, such as taxes, interest, insurance, clothing, and automobiles. Changes in the price level also affect farmers through their influence on the purchasing power of consumers and therefore on the consumption of farm products.

Unfavorable weather conditions affect not only the production of cotton on Louisiana farms, but also the supply and price of feed crops used in the production of the major cash crop, cotton.

Individual farmers can do little to insure completely against these two hazards. The purpose of the farm management survey in four North Louisiana upland cotton parishes was to study those factors which farmers can control and which have an important bearing upon the financial success of the farm business.

The survey for the 1938 crop year in Rapides, Union, Claiborne and Desoto Parishes was conducted by the Louisiana Agricultural Experiment Station in cooperation with the Louisiana Agricultural Extension Service. The 118 farms selected were those on which farm-unit demonstrations were to be conducted during 1939, thus the results probably do not indicate the average conditions for each area, but most likely show what the better farmers are doing. Information concerning farm inventories, farm receipts, expenses, and cropping practices were obtained by a visit to each farm.

## PRICE SITUATION

During the period covered by the survey, the 1938 crop year, prices received by Louisiana farmers for products sold were relatively unfavorable in comparison to prices in the four previous years and to the 1910-14 parity prices. The price of cotton to Louisiana producers for 1938 averaged 8.3 cents per pounds as compared to 12.3 cents for the 1910-14 period and 18.0 cents for the 1924-29 period. In addition, prices paid by farmers for commodities used in production and consumption were 22 per cent higher in 1938 than in the 1910-14 period.



## FARM ORGANIZATION

### Use of Land

The 118 farms surveyed averaged 146 acres in size (Table 1). Of this total acreage, 60.1 acres per farm, or 41.2 per cent, were planted to crops; 6.4 acres, or 4.4 per cent, in idle crop land; 28.0 acres, or 19.2 per cent, in open pasture; 16.6 acres, or 11.4 per cent, in woods pastured; 31.0 acres, or 21.3 per cent, in woods not pastured, and 3.6 acres, or 2.5 per cent, in land used for the farmstead.

The Rapides and Union Parish farms were smaller on the average, as measured by total acres in the farm and by acres in crops, than the farms studied in Claiborne and DeSoto.

The average acreage according to the 1935 Census was 54.6 acres per farm in Rapides, 78.5 in Union, 80.9 in Claiborne, and 62.6 in DeSoto. This indicates that the farms studied in these parishes in 1938 were about twice as large as the average farm according to the Census. This is due to the fact that cropper, share rent, and cash rent operators as well as owner-operated farms were considered as separate units by the Census while the farms studied in 1938 were limited to owner-operated farms. The sample taken in 1938 is probably representative of the average size of the owner-operated farms in the area.

TABLE 1. USE OF LAND, 118 FARMS, RAPIDES, UNION, CLAIBORNE AND DESOTO PARISHES, 1938.

Land Use	Acreage Per Farm					
	Rapides	Union	Claiborne	DeSoto	All Parishes	
	Acres	Acres	Acres	Acres	Acres	Per cent
Crops .....	41.7	63.0	71.6	63.6	60.1	41.2
Idle crop land .....	6.4	7.5	5.0	6.2	6.4	4.4
Open pasture .....	23.7	20.8	28.9	41.4	28.0	19.2
Woods pastured .....	17.8	14.0	20.1	15.8	16.6	11.4
Woods not pastured .....	41.0	25.5	32.5	27.4	31.0	21.3
Farmstead, waste, etc. ....	4.2	3.2	2.4	4.6	3.6	2.5
TOTAL .....	134.8	134.0	160.5	159.0	145.7	100.0
Number of farms .....	27	38	26	27	118	

### Crops Grown

The average acreage in different crops on the farms studied was 18.0 acres per farm in cotton, 20.6 acres in corn and peas or soybeans, 3.3 acres in corn not interplanted with legumes, 1.0 acre in truck crops, less than 1 acre in each of several minor crops, peanuts, sweet potatoes, Irish potatoes, and garden, and 14.5 acres in other miscellaneous crops, mostly hay and forage crops (Table 2).

In each of the four parishes studied, cotton and corn made up more than one-half of the total acres in crops. Rapides had a

TABLE 2. ACREAGE IN IMPORTANT CROPS, 118 FARMS, RAPIDES, UNION, CLAIBORNE, AND DESOTO PARISHES, 1938.

Crop	Acreage Per Farm				
	Rapides	Union	Claiborne	DeSoto	All Parishes
	Acres	Acres	Acres	Acres	Acres
Corn and peas or soybeans .....	17.1	19.1	23.4	23.1	20.6
Corn, solid .....	.6	5.5	4.1	2.3	3.3
Cotton .....	8.2	18.7	22.8	21.3	18.0
Peanuts .....	.7	.4	.6	1.6	.8
Sweet potatoes .....	.9	.7	.7	.9	.8
Irish potatoes .....	.9	.5	.2	.4	.5
Truck crops .....	.8	1.5	.3	.9	1.0
Garden .....	.7	.6	.7	.5	.6
Other crops .....	11.8	16.0	18.8	12.6	14.5
TOTAL .....	41.7	63.0	71.6	63.6	60.1
Winter legumes .....	10.1	10.2	4.0	10.1	8.8

smaller average acreage in cotton and in total crops than did the other three areas.

Winter cover crops, usually vetch or winter peas, were grown on most of the farms in the winter preceding the planting of the 1938 crops. An average of about 9 acres of winter cover crops per farm was grown, with Rapides, Union, and DeSoto farms having about 10 acres per farm and Claiborne 4 acres per farm. The usual practice was to plow under the winter cover crop in the early spring and to follow with cotton on the same land.

### Crop Yields

Cotton yields on the farms studied averaged 256 pounds of lint per acre (Table 3). Rapides Parish farms were highest with an average yield of 347 pounds of lint cotton per acre while the other areas averaged about 245 pounds. Several of the farms studied in Rapides were on the Red River bottom soils; thus the yields in the other three parishes are probably more representative of North Louisiana upland cotton yields in 1938.

TABLE 3. YIELDS OF IMPORTANT CROPS, 118 FARMS, RAPIDES, UNION, CLAIBORNE, AND DESOTO PARISHES, 1938.

Parish	Yield Per Acre				
	Corn, Solid	Corn and Peas or Soybeans	Lint Cotton	Sweet Potatoes	Irish Potatoes
	Bushels	Bushels	Pounds	Bushels	Hundredweight
Rapides .....	20.0	19.2	347	78	31
Union .....	8.5	9.1	243	60	47
Claiborne .....	13.0	11.4	239	79	37
DeSoto .....	19.0	11.4	253	71	70
All parishes .....	12.0	12.2	256	72	45

Corn yields averaged 12 bushels per acre, with Rapides leading with an average of about 20 bushels per acre and Union lowest with about 9 bushels per acre. Sweet potatoes averaged 72 bushels per acre and Irish potatoes 45 hundredweight per acre. The yield of Irish potatoes in Rapides Parish was relatively low because unfavorable marketing conditions at the time the commercial crop matured caused many of the producers to leave part of the crop in the field. Irish potatoes on the farms in the other three parishes were produced mostly for home consumption.

### Livestock

The 118 farms surveyed had an average of 7 milk cows per farm (Table 4). The dairy enterprise was more predominant in Rapides, with an average of 10 cows per farm, and in Claiborne and DeSoto, with 7 cows per farm, than on the farms in Union Parish, which averaged only 4 cows per farm. Milk produced above family needs was marketed in Rapides Parish mostly as fluid milk for local consumption in the Alexandria area while that produced in the other areas was sold as fluid milk for manufacturing purposes or as cream or butter.

Rapides and DeSoto were also highest in the number of other cattle, having 18 and 13 per farm, respectively, while Union and Claiborne had 6 per farm compared to an average of 10 for all farms studied. These were mostly general purpose range cattle.

The farms studied had an average of 3 head of workstock per farm, 2 sheep, 1 brood sow, 9 other hogs, mostly shoats for home consumption, and about 59 chickens. A larger number of sheep and hogs, and fewer chickens were kept on the farms in Rapides than on those in the other three areas.

TABLE 4. AVERAGE NUMBERS OF LIVESTOCK, 118 FARMS, RAPIDES, UNION, CLAIBORNE, AND DESOTO PARISHES, DECEMBER 31, 1938.

	Livestock Per Farm				
	Rapides Number	Union Number	Claiborne Number	DeSoto Number	All Parishes Number
Horses and mules .....	3.6	3.3	3.3	3.2	3.3
Milk cows .....	10.4	3.9	7.5	7.4	7.0
Other cattle .....	17.6	5.6	6.3	12.7	10.1
Sheep .....	6.9			1.9	2.0
Brood sows .....	2.1	1.3	.8	1.0	1.3
Other hogs .....	14.7	9.8	6.4	6.5	9.4
Chickens .....	44.9	65.7	59.7	64.7	59.4

## INCOME AND EXPENSES

### Capital Invested

The average capital invested on the 118 farms studied was \$6,348 per farm (Table 5). More than two-thirds of the total investment was in land and buildings in each of the parishes studied.



This was an average of between \$30 and \$35 per acre. Livestock accounted for about 15 per cent of the total investment and machinery and equipment 7 per cent.

The capital investment per farm in Rapides Parish averaged \$8651 as compared to \$5309 for Union, \$6009 for Claiborne, and \$5721 for DeSoto. Rapides Parish farms had higher investments in all the items of capital although the total acreage per farm was smaller in most of the other parishes studied. This was due to

TABLE 5. AVERAGE CAPITAL PER FARM, 118 RAPIDES, UNION, CLAIBORNE, AND DESOTO PARISH FARMS, DECEMBER 31, 1938.

	Capital Per Farm				
	Rapides	Union	Claiborne	DeSoto	All Parishes
	Dollars	Dollars	Dollars	Dollars	Dollars
Land .....	3484	2609	2655	2516	2798
Buildings .....	2351	1609	1734	1704	1828
Livestock .....	1427	700	1001	837	964
Power machinery .....	347	80	124	154	168
Other equipment .....	464	195	211	214	264
Feed and supplies .....	578	197	284	296	326
Total capital .....	8651	5390	6009	5721	6348

higher values per acre for land, to larger and more numerous buildings, and to larger inventories of livestock, equipment, and supplies.. This indicates that the Rapides farms were actually larger as to volume of business even though the average acreage was smaller. Acres per farm is not always a good measure of size of business.

### Farm Receipts

Total receipts per farm averaged \$1510 for the 1938 crop year (Table 6). Approximately one-third of the receipts were from crops, mostly cotton and cottonseed; about one-third from livestock and livestock products, mostly milk sales; and the remainder from other miscellaneous sources, such as A.A.A. payments, increase in farm capital, and work off the farm. Payments from the A.A.A. represented almost 10 per cent of total receipts for the year.

Receipts by parishes varied from \$1976 per farm for Rapides to \$1214 per farm for Union, \$1389 for Claiborne, and \$1577 for DeSoto. Rapides Parish had smaller receipts from cotton and cottonseed but much larger returns from livestock products; the Rapides farms averaged \$904 per farm for livestock product receipts, which were mostly sales of fluid milk, as compared to around \$300 per farm for the other parishes studied. As indicated by the receipts, the farms studied in Rapides Parish were predominately livestock farms with cotton as a minor supplementary enterprise, while the farms studied in the other parishes were mainly upland cotton farms with livestock as a supplementary enterprise.

TABLE 6. AVERAGE RECEIPTS PER FARM, 118 RAPIDES, UNION, CLAIBORNE, AND DESOTO PARISH FARMS, 1938.

	Receipts Per Farm				
	Rapides	Union	Claiborne	DeSoto	All Parishes
	Dollars	Dollars	Dollars	Dollars	Dollars
Cotton lint .....	281	389	502	473	409
Cottonseed .....	44	63	86	75	67
Other crops .....	219	70	61	100	108
Total crop receipts .....	544	522	649	648	584
Livestock sold .....	128	63	127	125	106
Livestock products .....	904	283	367	263	439
Total livestock receipts ....	1032	346	494	388	545
A.A.A. payments .....	59	156	144	195	140
Increase in capital .....	169	89	54	218	129
All other income .....	172	101	48	128	112
Total receipts .....	1976	1214	1389	1577	1510

### Farm Expenses

All farm expenses except pay for the farmer's own time and interest on his investment amounted to \$1139 per farm (Table 7). Man labor was the largest individual item of expense, averaging \$381 per farm, or one-third of all costs. Other important expenses were for feed, which averaged \$92 per farm; fertilizer, \$89; machinery purchased, \$89; and truck, tractor, and auto costs, \$80 per farm.

TABLE 7. AVERAGE EXPENSES PER FARM, 118 RAPIDES, UNION, CLAIBORNE, AND DESOTO PARISH FARMS, 1938.

	Expense Per Farm				
	Rapides	Union	Claiborne	DeSoto	All Parishes
	Dollars	Dollars	Dollars	Dollars	Dollars
Hired labor .....	265	99	113	155	154
Cropper labor .....	78	102	162	127	116
Unpaid family labor .....	86	134	141	73	111
Feed .....	80	92	138	62	92
Fertilizer .....	60	94	115	88	89
Ginning .....	24	40	52	42	40
Repairs, fences, bldgs., and machinery .....	98	62	38	76	68
Truck, tractor, and auto costs .....	152	48	66	67	80
Livestock purchased .....	93	51	109	54	74
Real estate improvements .....	25	26	128	143	75
All other farm expenses .....	223	113	88	195	151
Total farm expenses .....	1415	911	1197	1122	1139



Expenses per farm varied from \$1415 in Rapides to \$911 in Union, \$1197 in Claiborne, and \$1122 in DeSoto. The Rapides producers had larger farms as measured by total capital invested and numbers of productive livestock and thus had larger total expenses. Costs for purchased feed in Rapides Parish, however, were smaller in proportion to the number of livestock kept than in any other parish studied, indicating that a larger proportion of the feed was produced on the farms.

### Farm Returns

Total farm receipts averaged \$1510 per farm and total farm expenses \$1139 per farm. The difference of \$371 between these two figures is the amount of income left to cover interest charges and to pay for the farmer's own time, or the *farm income* (Table 8). In order to place all farms on a comparable basis, regardless of their indebtedness, 5 per cent interest was charged on the average investment. This interest charge on the average farm capital amounted to \$314 per farm. When this is deducted from the farm income of \$371, the remainder of \$57 is left to pay the farmer for his year's work and management. This is called *labor income* and is used as a measure of the financial success of the individual farm business. In addition to his labor income, the farmer has the use of his house and products from the farm, such as vegetables, milk, and eggs.

It should be kept in mind that a farmer's labor income is not comparable with city men's wages since the farmer has the use of his house and products in addition to labor income. Also, on any individual farm, if there is no indebtedness, the interest at 5 per cent would not have to be actually paid out and the farmer would have that amount for living.

The average labor incomes varied from \$174 per farm in DeSoto Parish to \$133 in Rapides, \$36 in Union, and —\$107 in Claiborne. The Rapides Parish farms had a larger average farm in-

TABLE 8. AVERAGE RETURNS FROM FARMING, 118 RAPIDES, UNION, CLAIBORNE, AND DESOTO PARISH FARMS, 1938.

	Average Per Farm				
	Rapides	Union	Claiborne	DeSoto	All Parishes
	Dollars	Dollars	Dollars	Dollars	Dollars
Total capital invested .....	8567	5346	5982	5612	6284
Total farm receipts .....	1976	1214	1389	1577	1510
Total farm expenses .....	1415	911	1197	1122	1139
Farm income .....	561	303	192	455	371
Interest on average capital at 5 per cent .....	428	267	299	281	314
Labor income .....	133	36	—107	174	57

come than farms in any of the other parishes, but also had a much higher interest charge because of the large capital investment per farm; the average labor income was slightly lower in Rapides than in DeSoto. In general, the farms studied in Rapides and DeSoto had higher returns from the year's farming operations than did those in Union and Claiborne.

### Farm Privileges and Labor Earnings

The total value of *farm privileges*—including the fruits, vegetables, field crops, livestock, and livestock products consumed by the farm family and the value of the house rent—averaged \$553 per farm (Table 9). This figure represents the value of products the farmer would have had to buy had he not produced them on the farm.

TABLE 9. AVERAGE VALUE OF OPERATOR'S FARM PRIVILEGES, 118 RAPIDES, UNION, CLAIBORNE, AND DESOTO PARISH FARMS, 1938.

	Average Per Farm				
	Rapides	Union	Claiborne	DeSoto	All Farms
	Dollars	Dollars	Dollars	Dollars	Dollars
Garden and field crops .....	133	116	127	129	125
Pork .....	26	39	45	42	38
Beef .....	3	4	4	3	3
Chickens .....	16	24	22	22	22
Eggs .....	19	19	21	21	20
Milk .....	159	154	129	155	150
Butter .....	16	32	33	23	27
Wood .....	30	34	29	31	32
House rent .....	138	134	136	130	134
All other .....	5	1	2	2	2
Total farm privileges .....	545	557	548	558	553
Labor income .....	133	36	—107	174	57
Labor earnings .....	678	593	441	734	610

Of the total farm privileges, garden and field crops amounted to \$125 per farm, or 23 per cent, while livestock and livestock products, mostly milk and butter, averaged \$260 per farm, or 47 per cent of all privileges. The estimated value of the house rent, which would have been a cash cost had the operators not owned their farms, averaged \$134 per farm, or about \$11 per month.

The *labor earnings* averaged \$610 per farm. Labor earnings include the labor income plus the value of all farm privileges and are comparable to the salary of a person living in a city. Thus it might be said that the 118 farms studied made an average salary of about \$51 per month in 1938.

There was relatively little variation in the value of farm privileges per farm in the different parishes. Labor earnings, however, owing to fluctuations in labor income, varied from \$734 per farm in DeSoto Parish to \$678 in Rapides, \$593 in Union, and \$441 per farm in Claiborne.

## Variation in Labor Earnings

Although the average labor earnings amounted to \$610 per farm, 15 farms, or 13 per cent, had minus labor earnings, or made nothing for their labor in 1938 (Table 10). Forty-two producers, or 35 per cent, had labor earnings of from \$1 to \$500, 32 per cent earned from \$501 to \$1000, and 6 per cent made more than \$2000 from the year's farming operations.

TABLE 10. VARIATION IN LABOR EARNINGS; 118 FARMS, RAPIDES, UNION, CLAIBORNE, AND DESOTO PARISHES, 1938.

Labor Earnings		Farms	Percentage of Total
Dollars	Dollars	Number	Per cent
—500 to	0	15	13
1 to	500	42	35
501 to	1000	38	32
1001 to	1500	15	13
1501 to	2000	1	1
More than	2000	7	6
Total.....		118	100

Why was there such a wide variation in the financial success of farmers in the same general area for the same year? This variation was not due to the price of cotton, the general price level, or the weather because all of these farmers had somewhat similar conditions in these respects. The following analysis attempts to point out some of the factors responsible for these variations, most of which individual farmers can control.

## FACTORS AFFECTING FARM RETURNS

Numerous statistical studies of farms in Louisiana and other states have shown that the most important factors causing variations in farm returns on similar farms in a given year are: (1) size of business; (2) rates of production; (3) choice of enterprises; (4) labor efficiency. An analysis of the 118 farms studied in 1938, relating the effect of the first three factors to farm returns, has been made; the fourth factor, labor efficiency, is usually interrelated with size and yields and can be studied separately only when a much larger sample is available and these interrelated factors can be held constant while the effect of the independent factor on farm returns is determined.

### Size of Business

There are many measures of the size of a farm business. Probably the most useful on mixed crop and livestock farms of the type studied in Rapides, Union, Claiborne, and DeSoto Parishes in 1938 are the acres in crops, including both cash and feed crops, and the number of cows. The farms having large acreages in crops



also had relatively large numbers of livestock and high capital investments; thus acres in crops is a fairly reliable measure of size of business on the farms studied.

The larger the acreage in crops, the higher were the farm returns (Table 11). The labor income increased from —\$9 for the farms with less than 40 acres in crops to \$23 for those with from 40 to 69 acres and to \$190 for those with 70 acres or more in crops.

TABLE 11. RELATION OF ACRES IN CROPS TO VARIOUS FACTORS,  
118 FARMS, RAPIDES, UNION, CLAIBORNE, AND DESOTO  
PARISHES, 1938.

	Acres in Crops			
	Less than 40 Acres	40 to 69 Acres	70 Acres or More	All Farms
Number of farms.....	43	42	33	118
Total acres per farm.....	80	134	246	146
Acres in cotton.....	7	16	34	18
Number of milk cows.....	4	5	14	7
Number of other cattle.....	8	6	17	10
Pounds of lint cotton per acre.....	246	218	275	244
Receipts from crops.....	\$259	\$433	\$1198	\$584
Receipts from livestock and livestock products.....	313	297	1163	545
Total receipts.....	910	1165	3010	1588
Total expenses.....	732	888	2263	1216
Labor income.....	—9	23	190	58
Labor earnings.....	476	525	895	611

The group of farms with less than 40 acres in crops had an average of 7 acres of cotton, 4 milk cows, and made labor earnings of \$476 for the year. The group with 70 acres or more in crops had an average of 34 acres in cotton, 14 milk cows, and made labor earnings of \$895 for the year.

These findings concerning the relationship of size of business to farm returns agree with the broad farm management principle established as a result of studies of hundreds of farms throughout the United States over a long period of years. The numerous studies indicate that in years of favorable price relationships, such as the pre-depression years of 1925-29, the influence of size is quite pronounced, while in depression years, such as 1930-34, when prices are unfavorable, incomes increase only gradually with increasing size of business.

Higher farm incomes resulting from a moderately large size of business are due to the following reasons: (1) greater efficiency in the use of labor can be obtained; (2) more work can be done with a given investment of capital; (3) building and machinery repairs and depreciation can be spread over a larger number of cows and crop acres; (4) fixed costs per acre and per cow can be reduced at no additional cost. All of these efficiencies result in reduction in cost per unit of production and thus in higher incomes.

## Rates of Production

The most important measure of rates of production on the farms studied was the yield of cotton per acre. Because of the fact that only about one-third of the total cash income on these farms was from the cotton enterprise, cotton yield is not a measure of the rates of production on the entire farm, but does give an indication of the changes in farm returns when cotton yields fluctuated.

In general, the higher the yield per acre of cotton, the larger were the farm returns (Table 12). The 46 farms having yields of less than 200 pounds of lint cotton per acre made an average labor income of \$1 per farm and average labor earnings of \$552; the 39 farms with yields of 200 to 299 pounds of lint cotton per acre made an average labor income of \$92 and labor earnings of \$656, while the 33 producers with yields of 300 or more pounds of lint cotton per acre had an average labor income of \$97 per farm and labor earnings of \$640. The high-yield group had slightly lower labor earnings than the middle group because they were more highly specialized cash crop farms and received fewer farm privileges in the form of livestock and livestock products.

TABLE 12. RELATION OF YIELD PER ACRE OF COTTON TO VARIOUS FACTORS, 118 FARMS, RAPIDES, UNION, CLAIBORNE, AND DESOTO PARISHES, 1938.

	Pounds of Lint Cotton Per Acre			
	Less than 200 Pounds Per Acre	200 to 299 Pounds Per Acre	300 or More Pounds Per Acre	All Farms
Number of farms.....	46	39	33	118
Total acres per farm.....	126	156	162	146
Acres in cotton.....	13	21	20	18
Number of milk cows.....	7	6	8	7
Number of other cattle.....	7	10	14	10
Pounds of lint cotton per acre.....	131	244	402	244
Receipts from crops.....	361	\$595	\$880	\$584
Receipts from livestock and livestock products.....	427	562	690	545
Total receipts.....	1242	1517	2154	1588
Total expenses.....	971	1129	1660	1216
Labor income.....	1	92	97	58
Labor earnings.....	552	656	640	611

Results of numerous studies have shown that, one year with another, the average farm returns increase consistently as the rates of production of crops and livestock increase. The advantages of high rates of production are less in periods of low prices because of the extra cash costs involved, but even in such periods moderately high yields show some advantage in income.

## Choice of Enterprises

In addition to *size of business* and *rates of production*, another important factor affecting farm returns is the combination of



enterprises. Experience has shown that, in general, farms with more than one important source of income have larger returns than do those depending almost entirely on one enterprise. Additional enterprises to the major source of income, where adapted to the situation, aid in bringing about more efficient utilization of labor and capital and provide a method of increasing the size of business.

The enterprises which can be most profitably combined in a farm business depend largely on local conditions and are affected by such factors as soil, climate, and marketing facilities. The most profitable combination is the one that results in the greatest total return above all costs from the farm as a unit over a period of years.

In areas that have been established in farming for a number of years, the type of farming followed has been established by numerous experiments of many farmers, and the accumulative result is usually the choice of enterprises that have been found most profitable for the area as a whole. Rapid changes in the economic situation, however, sometimes cause farmers to lag behind in their adjustment to the most profitable enterprises.

On the 118 farms studied in Rapides, Union, Claiborne, and DeSoto Parishes for the 1938 crop year, cotton was the major enterprise as it was produced on practically all farms and made up the major source of farm receipts. In addition, many of the producers maintained a fairly large livestock enterprise, mostly dairy cattle, which was the second most important source of cash income.

Table 13 presents an analysis of the farms studied, sorted according to acreage in cotton and sub-sorted according to numbers of dairy cows, which were the two most important enterprises. This analysis reveals the following facts:

1. The larger the size of business as measured by number of dairy cows, the greater were the farm returns. The farms with small acreages of cotton and a relatively small number of dairy cows made labor earnings of \$446 per farm as compared to \$876 per farm for those with relatively large acreages of cotton and more than average numbers of dairy cows.
2. The acreage of cotton alone had relatively little effect on farm returns. The farms with small acreages in cotton made about the same labor incomes as those with large acreages, with the number of cows being held constant, and only slightly lower labor earnings than did the large cotton farms. This is most likely due to the fact that the cotton enterprise in 1938 was relatively unprofitable because of the unfavorable price received for cotton.
3. The farms with a combination of relatively large acreages of cotton and large numbers of dairy cows made higher returns than any of the other groups. This indicates that the most profitable combination of enterprises on the farms

studied was a fairly large operating unit of both the cotton and the dairy enterprise. Producers specializing in either of these two without a relatively large unit of the other made lower returns than did those with a combination of both.

TABLE 13. RELATION OF ACRES IN COTTON AND NUMBER OF DAIRY COWS TO VARIOUS FACTORS, 118 FARMS, RAPIDES, UNION, CLAIBORNE, AND DESOTO PARISHES, 1938.

	Less than 15 Acres in Cotton		15 Acres or More in Cotton	
	Less than 5 Dairy Cows Per Farm	5 Dairy Cows or More Per Farm	Less than 5 Dairy Cows Per Farm	5 Dairy Cows or More Per Farm
Number of farms .....	39	20	29	30
Total acres per farm .....	87	129	178	203
Acres in all crops .....	28	44	77	96
Acres in cotton .....	7	8	26	31
Acres in open pasture .....	12	43	34	33
Pounds of lint cotton per acre .....	256	229	215	267
Bushels of corn per acre .....	14	14	8	13
Number of milk cows .....	2	18	2	11
Number of other cattle .....	9	11	7	14
Total receipts .....	\$811	\$2462	\$1206	\$2385
Total expenses .....	648	1813	1003	1761
Labor income .....	—35	210	—70	201
Labor earnings .....	446	757	456	876

## LOCATING THE STRONG AND WEAK POINTS

Table 14 will enable each farmer who gave a record in the survey to locate the strong and weak points in his farm business. Other farmers may find this table useful in sizing up their businesses. Estimates for individual farms can be placed in the proper spaces and comparisons made with the average of the group.

The group averages have been separated into two major divisions, those farms having less than 60 acres in crops and those having 60 acres or more in crops. This was done so as to make the comparisons more significant to the individual farmer, as he can compare his results with the results of the group of farms nearest in size to his own.

TABLE 14. SUMMARY OF THE FARM BUSINESS WITH COMPARISONS,  
118 RAPIDES, UNION, CLAIBORNE, AND DESOTO PARISH FARMS, 1938.

	Average Per Farm		Your Farm
	Less than 60 Acres in Crops	60 Acres or More in Crops	
Number of farms .....	75	43	.....
<b>Size of business</b>			
Acres per farm .....	100	226	.....
Acres in crops .....	35	105	.....
Acres in cotton .....	10	31	.....
Acres in open pasture .....	19	44	.....
Acres in winter legumes .....	5	15	.....
Number of milk cows .....	4	12	.....
Number of other cattle .....	8	14	.....
Number of workstock .....	3	5	.....
Dollars invested on January 1, 1939, in:			
Real estate .....	3042	7389	.....
Livestock .....	648	1514	.....
Machinery .....	315	638	.....
Feed and supplies .....	260	442	.....
Total capital invested .....	4265	9983	.....
<b>Rates of production</b>			
Pounds of lint cotton per acre .....	236	259	.....
Bushels of corn per acre .....	14	10	.....
<b>Important expenses</b>	<b>Dollars</b>	<b>Dollars</b>	
Hired labor .....	130	506	.....
Unpaid labor .....	86	154	.....
Feed .....	64	125	.....
Fertilizer .....	60	140	.....
Livestock purchased .....	52	112	.....
Other cash costs .....	134	240	.....
<b>Important receipts</b>			
Receipts from crops .....	332	1022	.....
Receipts from livestock and livestock products .....	271	1024	.....
Other cash income .....	188	363	.....
Increase in capital .....	195	229	.....
Average capital .....	4200	9922	.....
Total farm receipts .....	986	2638	.....
Total farm expenses .....	792	1955	.....
Farm income .....	194	683	.....
Interest on average capital .....	210	496	.....
Labor income .....	—16	187	.....
Value of farm privileges .....	494	655	.....
Labor earnings .....	478	842	.....